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Pupils' primary school achievements in Northern Finland

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Abstract

The purpose of this article is to analyze how pupils in Sámi- and Finnish-speaking classes in Northern Finland succeeded in school from 1979 to 1996 by collecting data on the school grades of 66 pupils from elementary school to junior high school. The data was supplemented later by interviews in order to clarify school success. The aim of this study is to clarify how school success was actualized through school grades in relation to gender and language-based school class. School success in this research is constructed through school grades. According to the statistical results, the girls were more successful in school than the boys. Overall, the Sámi boys did not achieve statistically good results in school; although there are individual exceptions. One explanation, according to interviews, is that the boys with low school grades did not find school to be generally important; they felt that their education was not interesting and that school did not consider their desires and choices. The interviewed boys stated that their goal was to work in the future in the traditional source of livelihood, not to continue their studies after elementary school in the academic fields. Compared to the boys, the girls earned higher scores in every subject. This result shows that the girls were more career-orientated and saw futures in occupations that required more study. Compared to Finnish-speaking pupils, Sámi pupils received lower grades overall. Generally, these results suggest that girls achieved greater school success than boys in Finland. Furthermore, Sámi boys received in research period lower grades than any other group. Study raises critical points related to the school success of indigenous pupils. Through these findings, this article seeks to highlight how schools should be changed to give all pupils support to their motivation, self-esteem and future good quality of life.

Keywords: Sámi people; indigenous people; equality; school grades, school achievement; school success; history of education

Pupils' primary school achievement in Northern Finland

1. Introduction

The Sámi people live in various areas of Finland, Sweden, Norway and the Kola Peninsula, Russia. Each of these countries has implemented different acts to formulate its education structure. The development of Sámi language teaching and teaching in the Sámi language began in the early 1970s and 1980s. This article focuses on the situation of Sámi education in Finland from the perspective of educational justice, beginning when Sámi classes were first implemented for Sámi children in 1979. The aim of this study is to determine pupils' school success by investigating school grades during elementary school in Finnish Sámi home area. School success is meaningful in pupil's life, since the future partly depends on school grades. In general, the pupils' grades indicate their future educational plans: higher grades point to a desire to continue to the next level of education, and lower grades suggest a path involving choosing to find an occupation after possible vocational school and finding an occupation (Ristikari, Törmäkangas, Lappi, Haapakorva, Kiilakoski, Merikukka, & Gissler, 2016; Saarreharju & Paksuniemi, 2017).

Today, in Finland, there are several Sámi-speaking classes in Sámi administrative areas in the Utsjoki, Enontekiö, Inari and Sodankylä municipalities. Sámi administrative areas are defined by Finland's Sámi Parliament Act. Finland is home to three different Sámi languages, which are identifiable by their grammatical and phonological differences: Inari, Skolt and North Sámi. The Sámi people are treated as indigenous people according to international law. However, 75 per cent of Sámi-speaking children already live outside the core Sámi areas. According to separate regulations, these children can study the Sámi language only two hours per week (Aikio-Puoskari, 2005). This means that, in practice, these pupils cannot use their mother tongue at school; instead, their studies are executed mostly in Finnish. According to Koistinen (2010), Finnish pupils have in some cases motivation problems with their education or with going to school. They find the experience stressful and believe that school success requires a lot of extra work after the end of the school day. The latest research has also shown that boys in lower secondary school, in particular, struggle to earn good grades (Ahonen, 2010; Halonen, 2012; Lauriala & Laukkanen, 2010; Leskisenoja, 2016). At the same time, research findings show that Finnish pupils score highly on international tests, such as PISA (Kupari, Välijärvi, Andersson, Arffman, Nissinen, Puhakka & Vettenranta, 2013) and other evaluations (Hautamäki, Harjunen, Hautamäki, Karjalainen, Kupiainen, Laaksonen, ... Scheinin, 2008; Kupari & Välijärvi, 2005). Thus, it seems that the educational system is effective.

Recently, in the northern regions of Finland, educators have started to pay attention to boys' role in school (e.g. Lauriala & Laukkanen, 2010), including, especially, the role of Sámi boys (e.g. Nystad, 2003, 2016). The Finnish Education Evaluation Centre (FINEEC) assessed the Sámi language learning outcomes of pupils in basic education in grades 7 to 9. The assessment covered Sámi as a mother tongue syllabus and as a syllabus A in Northern Sámi, Inari Sámi and Skolt Sámi. The nationwide assessment was carried out in 2015 in the form of a full assessment, with the aim of including all pupils studying Sámi as a mother tongue or as a syllabus A, whose teaching was implemented in accordance with the national core curriculum for basic education. In the assessment of the learning outcomes of Sámi as a mother tongue syllabus, the pupils scored an average of 60 per cent of the maximum points. However, there were differences among the Sámi languages. For Inari Sámi, the average percentage of correctly completed questions was 44 per cent. For Northern Sámi, the corresponding figure was 66 per cent. For both languages, the pupils attained their highest percentages of correctly completed questions in the speaking assignments: 83 per cent for Inari Sámi and 81 per cent for Northern Sámi (Huhtanen & Puukko, 2016).

It is widely agreed that it is important to study the educational, cultural and gendered practices of indigenous peoples. Furthermore, according to previous research, children's success in school indicates their future success (Körkkö, Paksuniemi, Niemisalo, & Rahko-Ravanti, 2017; Ristikari et al., 2016; Valtion Painatuskeskus, 1970a)

and, therefore, is related to educational equality and social justice (Furumoto, 2003). Frequently, the participation of indigenous girls in education, particularly in third-world countries, has been studied and addressed within the research agenda (e.g. Kelly & Elliott 1983; UNESCO, 2015); however, equal attention must also be paid to indigenous boys and their education and school paths (see Nystad, 2003).

Nystad new research is about Sámi youth in Guovdageaidnu, Finnmark, and on their transition from youth to adulthood. Nystad has researched how the Sámi cultural values strengthen youth when facing challenges and stress, and how youth build up resistance. Nystad points out that much of the previous research on Sámi youth has had a strong focus on risk factors that have negative outcomes, but in she has the focused on factors that contribute to healthy development and good coping strategies. Nystad has studied three different youth groups who live in a community where the Sámi are in a majority. Youth belongs to reindeer herding, farmstead and multiracial families. Sámi youth are early socialized to traditional Sámi values as being able to rely on themselves and one's own ability to take care of themselves. The extended family and kinship system, and godparents are important social networks that contribute to both mental and practical support. The fact that youth actively incorporated into taking part in cultural practices and ceremonies and having own *luohti* (Sámi traditional song tradition) and *gáibmi* (namesake), are elements that strengthen and build youth confidence, self-worth and belonging. Positive self-concept makes youth more easily handle adversity. Young think the Sámi language skills as very important and is the main factor to be identified as the Sámi, while those who do not speak the language feel excluded and their Sámi identity is not recognized (Nystad, 2016).

2. Research background and the study construction

In 1979, Sámi-speaking classes were established in Utsjoki. The Ministry of Education granted the Sámi Homeland municipalities waivers that supported the recruitment of additional Sámi language class teachers. Most of teachers were Finnish speakers in lower secondary level, as it was difficult to find qualified Sámi speaking teachers for these positions. Individual families could then choose whether their pupils attended Sámi-speaking classes or Finnish-speaking classes. The numbers of pupils who started in the Sámi language class each year were as follows: 16 pupils in 1979, 14 in 1980, 5 in 1981, 4 in 1982, 5 in 1983, 7 in 1984, 5 in 1985, 5 in 1986 and 6 in 1987 (the final year of the research project). The final class graduated in 1996 (School Archive of Utsjoki). During the investigated time period, the lower secondary school offered only Sámi language subject instruction and otherwise school was in Finnish in years of 7 to 9, and Sámi classes were offered during primary school in years 1 to 6.

Curriculum planning during the 1970s sought to meet two demands related to school grades: first, to increase students' competences in their subjects, and second, to enhance their natural abilities and intelligence (Valtion Painatuskeskus, 1970b). The curriculum was meant to influence students' opportunities for learning outcomes (Valtion Painatuskeskus, 1970a). Then, in the 1990s, a new school reform movement started. In recent decades, equality in education has had a strong presence, and the Finnish education system has developed in this context. It is important to consider how these changes and emphases have been implemented in Finland's Sámi Administrative Areas, where the primary education context includes both Finnish- and Sámi-speaking classes.

During the study period (1979–1996), the Committee's Report, whose first part comprises the program plan and whose second part contains the curriculum subjects (Valtion Painatuskeskus 1970a, 1970b), was used as a guideline for education. This report was used as a comprehensive school curriculum beginning in 1985. At the end of the study period, however, in 1994, the comprehensive school curriculum was introduced. The first study period reflected the efforts of the Curriculum Committee following the transition to the primary school system of the second half of 1960. In 1970, the program plan—POPS 1970 A4 and A5—was completed. The first part of this plan dealt with the study plan criteria, and the second part contained the curriculum subjects. This second part was ultimately criticised as excessive (Uusikylä & Atjonen, 2000, p. 51–52). On the other hand, in 1985, the traditional Curriculum Committee' report began to assemble core curricula that were framed and controlled by the municipality and by the school's curriculum work. Although school evaluations are seen as a development

tool, the resulting curricula have been seen as unqualified and as leaving evaluation problems untreated. The curricula have stressed that society is based on a strong understanding of 'Finnishness'; however, at the same time, society is multi-cultural and international (Rokka, 2011).

The Primary School Act (27.5.1983/476) was in use for the entirety of the studied period. For Sámi population, the municipality forms the school district for Sámi language teaching. Therefore, pupils living in Sámi homelands, or Sámi-speaking students, can choose Sámi as their language of instruction (Primary School Act, 25.1.1991/171). Sámi language instruction is issued by the study score. The parent of a Sámi Homeland student has the right to choose whether the student will study in Finnish or in Sámi (Primary School Act, 25.1.1991/171). With the consent of the legal guardian, a student in the Sámi Homeland can be taught Sámi as a mother tongue and Finnish as a foreign language in addition to the Sámi language, depending on the availability in the curriculum (Primary School Act, 8.2.1991/261 7). For Sámi Homeland resident students, optional subjects are taught in the Sámi language (Primary School Act, 31 c § 3.8.1992/707).

This article follows an approach based on the history of education, using data collected from the School Archive of Utsjoki Primary School. Utsjoki is the only municipality in Finland where Sámi people are in the majority, and the community comprises four villages: Utsjoki, Nuorgam, Outakoski and Karigasniemi. In addition, the area is also home to other, smaller villages. The data include pupils' certificate grades for Sámi classes during their final year of junior high school. Using these data, this article aims to explore: Firstly, what kinds of grades did the pupils receive? Secondly, are there differences between the grades of boys and girls or between pupils in Sámi-speaking and Finnish-speaking classes? Thirdly, what kinds of opinions do the pupils have about school? These three research questions are analysed from the perspectives of educational justice and equality. The examined period runs from the launch of Sámi-language primary school classes in 1988 until 1996, and the data include Finnish-speaking classes from the same period. The grade data contain information on the school grades of 66 Sámi-speaking pupils and 80 Finnish-speaking pupils in grades 3, 6, 7, 8 and 9, as well as their grade point averages for every school subject. The school subjects selected for this research were chosen based on previous studies, which indicate that the most important school subjects when studying school success are: the Finnish language, English, Swedish and mathematics (see e.g. Järvensivu & Paksuniemi, 1997; OECD, 2013; Ristikari et al., 2016).

In addition, we interviewed 5 boys and men about their ideas about school and school success. They were aiming to work and working at traditional livelihoods, like reindeer herding. They were age of 15-30. These boys and men were younger generation than the sampling in the statistical research conducted by the article writers. This kind of choice was done as the statistical research was conducted in year 1996 part of the master thesis, and now part of the article writing the newer interviews were made. Statistical research was conducted in Utsjoki, and interviews in the Sámi home area, Finland.

In our study, we compare two linguistic school classes, Finnish and Sámi. We assume they are partly constructed by the ethnic background, although in both classes are both Sámi and Finnish background pupils. The term 'ethnic group' was defined by Royce (1982) as follows: "An ethnic group is a reference group of people who share a common historical tradition, which set up a display characteristics and inherited values. "Members of the group in interaction while the other groups are identifying themselves as representatives of that tradition" (p. 24). This definition is quite broad, as are general-level analyses, such as that by Allardt and Starck (1981, p. 38). According to Allardts and Starck (1981), an "ethnic group is a group of people with some of the cultural, linguistic or racial peculiarities and which, at least in part, have a common origin and a sense of belonging together". Individuals tend to focus more and more on members of their own ethnicities based on a subjective level of identification (Herberg, 1989). According to Lönnqvist (1981), ethnicity is not a determining key factor in language (see also Allardt & Starck, 1981). Sariwaara (2012) similarly notes that language is not central to the definition of ethnicity. Noteworthy is that the data that does not reveal the ethnicity from the language studied.

3. Equality in education and success in school

Finland's comprehensive schools and education system have changed significantly in recent decades as part of the country's overall socio-political development. In the 20th century, decision-making powers related to the school system were transferred to the municipalities, largely because it was felt that the municipalities would be able to make the best decisions on matters concerning their inhabitants. Despite this shift, the progress of educational equality has been a growing concern, and evidence of instruction in the Finnish school system has supported proposals for improvement. Educational equality implies that everyone has the same right to attend school (Lakkala, 2008).

In Finland, learning outcomes are published each semester through student certificates, with subject marks for each studied class. These marks use the same scale as that used in exams. Student evaluations refer to the marks given to each student in his or her assessment data. The mission of student evaluations is to promote the growth of the student's learning in relation to the curriculum objectives and to support ongoing education reform. It is essential that grade assessments be individual and that they take into account students' development stage and conditions. In particular, assessments should support students' development of healthy self-esteem and their realistic understanding of how to shape their own knowledge and skills, as well as the importance of continuous learning. Student assessments are designed to encourage students to set goals in a positive way, to plan their work and to make their own choices. Advanced student evaluations also consider students' social interaction.

According to previous studies, pupils' school performance is affected by several factors, such as personality and talent, which, in turn, affect individual and environmental factors (McDonald & Morrison, 2015). However, talent alone does not guarantee success in school. Learning culture is also a key factor in building schools that foster academic achievement in students (Tichnor-Wagner, Harrison, & Cohen-Vogel, 2016), and school atmosphere influences both student achievement and student wellbeing (Ahonen, 2010; Kangas, 2010). School favours verbal, linguistic, logical and mathematical types of intelligence and tends to undervalue other types of intelligence, such as bodily and kinesthetic intelligence (Hine, 2007). Teachers' evaluations of pupils are not reliable evidence of the pupils' actual talent (Ora, 1915, 446–456). Furthermore, the acquisition of education should not be equated with intelligence; school success is linked more to pupils' overall school success than to their talent when starting school (Kuusinen & Leskinen, 1986). The majority of school practice and school work prioritise spoken or written language. Children's social groups and linguistic backgrounds determine their school achievement. Bilingual children's language skills are connected with their language levels (Øzerk, 1995). Earlier research suggests that culturally responsive teaching is highly important among indigenous pupils (Keskitalo, 2010; LaPoint & Jackson, 2004; Manswell-Butty, Reid, & LaPoint, 2004; Thomas, 2004).

School measures teachers' success in various subjects and grades based on their average performance. Teachers seek to provide an overall picture of a child's cognitive skills and knowledge. The average indicates a pupil's average know-how; therefore, it does not consider the student's special skills, abilities or weaknesses. The average does not tell the whole story of a student's academic performance. A student's primary indicators of school performance are his or her grades in the Finnish language (mother tongue), a foreign language and math (e.g. OECD, 2013). School success is considered to offer inadequate data for many reasons, since it includes only technical criteria measurements. Grades are given by teachers, and teachers and schools use different rating scales. Words have poor value as criterion variables, since words may contain assessment errors. Nevertheless, grades are valid for research purposes, and this study offers a unique opportunity to explore ethnic equality in education and training. Recent PISA results suggest that boys who belong to ethnic minorities, such as the Sámi minority, or who have immigrant backgrounds, do not succeed as well as other pupils in Finland (Kupari et al., 2013).

Case studies have shown that ethnicity does not have a clear impact on school performance. Study habits, family background and social status all affect students' academic performance; however, the main effect is gender (Ristikari et al., 2016). According to Skutnabb-Kangas (1988) the reasons for the difficulties faced by

minority students in school can include the children themselves, their parents and their minority groups, regardless of language, social or cultural shortcomings. Along these lines, enrichment theory focuses on the search for things that cause minority children to fail in school and argues that schools should be changed to accommodate minority children (Skutnabb-Kangas, 1988).

Sámi educational problems include a lack of teaching materials and the divergent effects of two cultures: indigenous and mainstream. The current objective is to improve Sámi school surroundings and work environment. The Sámi Homeland learning experience may be more meaningful for pupils if school teaching materials are more motivating (Rahko-Ravanti, 2016). Sámi pupils attend to schools, which are controlled by mainstream culture. However, school and Sámi background do not necessarily apply. For example, there is evidence that poor grades may lead to school dropouts or social problems. Low levels of school achievement result in a lack of learning progress, as difficulties have a tendency to accumulate (Kupari et al., 2013). Furthermore, disparities among students in Sámi language classes are greater than among students in Finnish language classes. It seems that students' background affect their assessment of performance in school. Each child brings to school certain disadvantages and advantages according to his or her personal capacities or home background. These factors decide the extent to which the school is able to provide the student with knowledge, skills, values, attitudes and help over the course of the student's educational life (Hargreaves, 2012). It is about how school can take account every pupils' cultural capital and what kind of cultural capital is valued at school and also about what kind of cultural capital and values homes are offering to the pupil (Bourdieu, 1985).

Studies have shown that gender is a significant factor in school success. Girls earn better grades than boys in studies related to school subjects in mother tongue, foreign languages and mathematics. According to statistics, girls are, on average, better than boys in every school subject. In fact, on average girls perform 50 per cent better than boys in their mother tongue and in foreign languages. In mathematics, the differences are smaller, and boys and girls each have several good and poor performers. (Lahelma, 2006; Löfström, 2007; Paechter, 2007; Ristikari et al., 2016; Unesco, 2002.) Skolt Sámi research suggests that boys and girls differ in their school success, showing that Skolt Sámi boys were less successful in school than Sámi girls, Finnish girls and Finnish boys (Seitamo, 1991). However, differences between Sámi and Finnish girls were low. Hoëm (1976) conducted similar research in Norway, which showed similar differences in the academic performance of ethnic groups and between boys and girls.

4. School success and grades

4.1 Grade point averages

The results of this study show that the largest difference occurred between the grade averages for third and ninth grade. All students in third grade scored an average of 8.0, and students in sixth grade scored an average of 8.2. Scores increased in elementary school, but fell during the transition to secondary school. In seventh grade, the average score was 7.8, and this remained the same in the spring of the ninth grade. These averages show that ethnic equality seemed to occur for past pupils of Sámi classes. Next, we examined the average scores of boys and girls. These results show that the girls scored higher than the boys in each elementary school class. In the third grade, girls scored an average of 8.1, and boys scored an average of 7.8. In the sixth grade, the differences increased: girls scored an average of 8.5, but boys stayed the same at 7.8. Following the transition to secondary school, averages for each group fell: Girls scored an average of 8.1, and this score remained the same until the end of secondary school, and boys scored an average of 7.3 in seventh and eighth grade and of 7.5 in the spring of ninth grade.

Table 1*Certificate grade point averages, total of 730 (School Archive of Utsjoki. School grades 1979-1996)*

Grade	Sámi Girls	Sámi Boys	Finnish Girls	Finnish Boys
3	8.1	7.8	8.4	7.7
6	8.5	7.8	8.6	7.8
7	8.1	7.3	8.5	7.6
8	8.1	7.3	8.4	7.5
9	8.1	7.5	8.5	7.6

Note. Lowest grade is 4 and highest 10 in Finnish primary school system.

These averages show the students' average levels of competence. Though individual data offer more detailed results, in averages for the whole group, individuals with high and low marks compensate for one another. The study results are justified by the fact that, during the study period, Sámi language education almost entirely ended by the end of junior high school.

When students were asked why they struggled to succeed at school, all of them explained that they felt that school was not theirs; it did not take their Sámi background or culture into consideration. One student explained:

I have known since childhood that [I have] no school motivation. The school did not reflect my lifeworld, [and] it was difficult to wake up. The school was [designed] in order to [give] to all the pupils the same [education], [and those who were] the same [got better] grades than others. I think it was bad when I'm not able to do that [get good grades]; then, I felt [that I was] worse than the other pupils. I could not rejoice in my background, and my own choices are good, as I think, opposite to school. I wanted to stay in the nature to the North. (I. 2)

One important theme that was lacking from the school was nature and its connection to Sámi culture. The interviewed students said that, since nature was an important part of their lives, it should have been included in the teaching, as well:

Nature should have been more involved in education. I wanted to show others what I have learned from childhood at home. Mankind never needs more than just a school to learn. Almost all the teachers were people from the South. I would have liked the school to [incorporate] more wildlife: bird hunting, fish, meat gigs, reindeer herding and traditional food stuff. (I. 4)

The school was not the school of the Sámi boys. For most of them, going to school was only a task to complete as quickly as possible. They did not concentrate on getting high grades or on succeeding, feeling that such efforts were pointless. One student relayed the following:

Junior high school was always a tough stress, but I was coping [with] the school, and [I] passed the tests. I had to work at home as an adult [and] did not have time to read. It was a tough challenge to think about how to succeed, or succeed in school. Sometimes I had to read at night or early in the morning. (I. 5)

4.2 Finnish language

Pupils in Sámi classes in primary school sought to become bilingual; therefore, they studied both Finnish and Sámi side by side. In the third grade, Sámi pupils' average mark in Finnish classes was 7.9; this rose to 8.3 by the spring of the sixth grade. In the seventh grade, their grades dropped to an average of 7.8. During the eighth and ninth grades, average Finnish marks remained the same: 7.9.

Table 2*Finnish language grades, total of 730 (School Archive of Utsjoki. School grades 1979-1996)*

Grade	Sámi Girls	Sámi Boys	Finnish Girls	Finnish Boys
3	8.1	7.6	8.5	7.7
6	8.7	7.8	8.7	7.6
7	8.2	7.3	8.6	7.4
8	8.4	7.1	8.7	7.3
9	8.4	7.2	8.9	7.6

Both girls' and boys' Finnish language marks changed between the third grade and primary school. Girls' grade point average started 8.3, and boys' started at 7.7. Girls' marks continued to rise, reaching 8.7 in the sixth grade, while boys' remained the same: 7.7. This represents a significant difference between the genders. During the transition to secondary school, the difference remained the same: Girls earned an average of 8.4 in Finnish, while boys earned 7.4. However, the difference continued to grow in the eighth grade, when girls' grade point average was 8.6 and boys' was 7.2. In the ninth grade, when the students graduated, the Finnish language gap reduced slightly: Girls had an average score of 8.7 and boys had an average score of 7.5.

Home and school affect students' language success. Of course, students' own motivations also affect school performance. Children's linguistic skills impact their motivational success, as do linguistic intelligence, parental social status, verbal interaction and the home environment (Kupari et al., 2013). The impact of the transition to secondary school is clearly reflected in the Sámi students' grades, which fell. It is understandable that when students to switch away from learning a second language, this is the effect. During primary school, Sámi pupils study almost all subjects full-time with a Sámi teacher. In junior high school, however, the language of instruction for several subjects changes to Finnish. Thus, with the home language policy, there is a clear link between children's Sámi and Finnish language skills. The connection between the mother tongue and foreign language skills is quite clear (e.g. Kuo & Anderson, 2012).

4.3 English language

The English language results show that English language learning begins in elementary school when all pupils exhibit very good grades. However, the pupils' grade point averages fell by the end of the sixth grade. The average score for English language remained the same in the seventh grade, but by the eighth and ninth grades, it had fallen again. The difference between the Sámi boys' average score and the Sámi girls' average score is clear. The data also shows that the Sámi pupils had less success in English language than the Finnish pupils in all years; the Finnish girls had higher grades than the Sámi girls and the Finnish boys had higher grades than the Sámi boys.

Table 3*English language grades, total of 730 (School Archive of Utsjoki. School grades 1979-1996)*

Grade	Sámi Girls	Sámi Boys	Finnish Girls	Finnish Boys
3	8.6	8.0	9.2	8.5
6	8.3	7.2	8.7	7.4
7	8.3	7.2	8.4	7.5
8	8.2	7.0	8.5	7.4
9	7.9	6.7	8.3	7.3

The interviewees did not seem to think that learning different languages was important. According to them, there were several other more important topics that were more relevant to their lives. As one interviewee explained:

I expected at all times that the school would be the place where, more or less, [I] could benefit the abilities needed in the woods or the technology matters, like driving a snowmobile and such.

I did not want to go to school at all, especially not in primary school English and secondary school Swedish, therefore, that I may learn languages. Sámi was not so much: only few hours. I would have wanted to learn more Sámi. It would have needed to [have] been more and [on a] better level. (I.1)

4.4 Swedish language

The pupils in Finland start to study Swedish in the seventh grade. The Sámi pupils' Swedish language grades fell in the eighth grade and in the ninth grade. In seventh grade, Sámi girls' and Sámi boys' Swedish language grade points showed a significant difference. The Finnish girls' and boys' grades also decreased, but not as much as the Sámi pupils' grades. Øzerk (1995) noted that bilingual children learn new languages more easily than children who speak only one language. This theory partly explains why Sámi pupils earned good grades in Swedish at the beginning of middle school. The rapid decline, in turn, reflects the fact that the foreign language was not the pupils' native language.

Table 4

Swedish language grades, total of 438 (School Archive of Utsjoki. School grades 1979-1996)

Grade	Sámi Girls	Sámi Boys	Finnish Girls	Finnish Boys
7	8.4	6.9	8.3	7.1
8	7.9	6.3	8.3	6.6
9	7.6	6.2	8.0	6.6

Like English, the Swedish language was seen as an unimportant subject. One of the interviewed students felt that studying Swedish was something which had to be done, and he forced himself to pass the courses (I. 6). In addition, pupils highlighted a desire to learn the Sámi language instead, stating: "I would have liked to learn more Sámi language."

4.5 Mathematics

Sámi pupils' mathematics grade point average rose in sixth grade, but dropped when the pupils transferred to seventh grade. The grades for mathematics fell further in the eighth and ninth grades. The difference between the genders, however, flattened out in the sixth grade. Following the transition to secondary school, the grade point average fell, particularly among the boys. Thus, the difference between the genders changed to be in favor of the girls. The boys' average scores were higher than the girls' average scores; yet, all together the grades of the Sámi children were not as high as those of the Finnish pupils'. These results may be related to Sámi language learning materials and the shortage of textbooks. However, the situation improved in the 1970s and 1980s.

Table 5

Mathematics grades, total of 730 (School Archive of Utsjoki. School grades 1979-1996)

Grade	Sámi Girls	Sámi Boys	Finnish Girls	Finnish Boys
3	7.7	8.2	8.1	8.0
6	8.0	8.0	8.3	8.0
7	7.7	7.3	8.1	7.6
8	7.4	6.8	8.2	7.5
9	7.6	6.9	8.0	7.5

Each pupil has access to his or her own diverse cognitive structure, which forms his or her concepts of personal images (Tall & Vinner, 1981, pp. 151-169). Thus, each student experiences mathematical concepts in his or her own way and forms a suitable vocabulary and terminology, which is operated by, inter alia, abstract thinking. A personal approach is the experience and the background produced by the result. If a student is studying concepts and shape concepts in the Sámi language must later change languages to Finnish, this may affect his or her mathematical thinking. On the other hand, strong bilingualism may positively contribute to a

child's mathematics learning (Koppinen, Lyytinen, & Rasku-Puttonen, 1989). Therefore, the study results suggest that the language change from Sámi to Finnish in junior high school did not support student success in mathematics.

The Sámi boys felt that the topics in the mathematics equations did not reflect their point of view. They argued that the mathematics topics were made by Finnish people and for Finnish people:

Mathematics was not practical, so that would have given [life skills] in terms of, say, real-life experiences. Mathematics in books showed only the Southern Finnish perspective. I had no wish to calculate the pounds of apples; I would have wanted to calculate the reindeer kilos and kilos of fish. We were within four walls all the time. We visited only once a year out[side] to study. (I. 5)

Students also mentioned the lack of possibilities to study in their mother language as a main factor in why they did not feel that the school was theirs: "At school, it was boring: mathematics and mother tongue, first of all—they cannot cope! We were studying mathematics in the Finnish language, as the Sámi was our mother tongue" (I. 5). They also argued that the pedagogical choices were not culturally sensitive: "Craftsmanship and the natural environment within the themes should have been more [frequently included], and [so should] mathematics in the woods" (I. 5).

The interviews clearly showed that the students would have liked to study more in nature and in the environment, which were familiar to them. The interviewees wished for times to show off their skills and ignite campfires in the woods. The Department of Mathematics and the Finnish language were challenging to explain, given that the contents of the textbooks were not related to the students' worlds. Overall, the pupils suggested that the learning materials should be more culturally meaningful.

5. Conclusion

This study's examination of grades suggests that pupils' negative perceptions of the Finnish language were probably due to the fact that the pupils (or at least one of the interviewees) would have preferred to study in the Sámi language. In other words, Finnish schools are designed for Finnish people, and this will continue to affect pupils' grades. One approach to address this issue could be taking the cultural socio-linguistic perspective, which suggests that pupils will learn better if the Sámi culture is incorporated into their curricula. In addition, attention should be paid to the organization, time and place of school learning.

A lack of motivation affects learning and, consequently, the value of words and learning. This is expressed in the language of learning. This study's examination of grades suggests that the students' negative perceptions of Finnish were probably due to the fact that the students (at least one of the interviewees) would have preferred to study the Sámi language. Finnish schools are designed for the Finns (Paksuniemi, 2009), and this will continue to affect the material collected in the data. One approach to addressing this issue could be taking the cultural socio-linguistic perspective, which suggests that students will learn better with the Sámi culture. In addition, attention should be paid to the organisation, time and place of school learning (see Keskitalo, 2010; Kupari et al., 2013).

The interviews clearly demonstrated that the students would have liked to study more in nature and in the environment, which were familiar to them. The interviewees wished for times to show off their skills and ignite campfires in the woods. The Department of Mathematics and the Finnish language were challenging to explain, given that the contents of the textbooks were not related to the students' worlds. Overall, the pupils suggested that the learning materials should be more culturally meaningful.

Teachers work within a framework that includes a heavy work load. Consequently, to help teachers meet the needs of Sámi students, the state should ensure that they have the best possible conditions. Local language

design and value create a basis for study success. We also need individuals who will take the planning process forward. Teachers' knowledge of Sámi pupils could be improved, for example, through training. The independent Sámi school system and the Sámi curriculum in Finland offer models and suggest ways to move forward. In Norway and in Sweden, there are already functioning Sámi school systems (see Rahko-Ravanti, 2016).

It also seems that boys and their education are worth a closer look, particularly with regard to school gender neutrality. Both genders will benefit from a holistic gender learning perspective and from varied working methods, which can stimulate the learning of different aspects of varying degrees. In this sense, it is important for the Nordic countries to resolve the object and purpose of gender and education, while poor countries must wrestle with a problem of resources problem.

The study results show that Sámi girls and boys earned different marks across all subjects. In particular, the survey results confirm that ethnicity is not the only factor affecting academic performance. Family socio-economic status indicates pupil's school performance as well as by a range of other family, individual and contextual factors (Considine & Zappalà, 2002). Some ethnic groups have more economic and social capital resources and their school success is furthered by these resources (e.g. American Psychological Association, 2012). There is some evidence that parental engagement can improve pupil performance (Stokes, Rolfe, & Hudson-Sharp, 2015). Like socioeconomic, racial/ethnic, and gender inequalities in academic achievement have been widely reported according to Bécaries and Priest (2015), but how these three axes of inequality intersect to determine academic and non-academic outcomes among school-aged children is not well understood. According to results of mixture models show large inequalities in socioemotional outcomes (internalizing behavior, locus of control, and self-concept) across classes of advantage/disadvantage. In research conducted in US within classes of advantage/disadvantage, racial/ethnic and gender inequalities are predominantly found in the most advantaged class, where Black boys and girls, and Latina girls, underperform White boys in academic assessments, but not in socioemotional outcomes. In socioemotional outcomes, Black boys and girls perform better than White boys. Latino boys show small distinctness as compared to White boys, principally in science assessments. The contrastive outcomes between racial/ethnic and gender minorities in self-assessment and socioemotional outcomes, as compared to standardized assessments, spotlight the prejudicial effect that intersecting racial/ethnic and gender discrimination have in patterning academic outcomes that outguess success in adult life. Interventions to cancel out achievement gaps cannot to the full manage as long as social stratification caused by gender and racial discrimination is not addressed (Bécaries & Priest, 2015).

According to Seitamo's (1991) research on Skolt Sámi students, gender affected the academic performance of different groups. The results of the present study show that girls' grades are higher than boys' grades, with the exception of the subject of math. These results are consistent with those of other studies: In general, girls' achieve greater success at school, possibly due to biological/structural, educational or environmental factors and their interactions. Boys earned lower grades than average at all class levels. Girls' success can be explained by different factors; for example, their marks in the Finnish language could be explained by the fact that girls read books and write their own texts more than boys. Girls also tend to like studying languages and literature. In other words, girls seem to be more linguistically talented than boys, and they achieve greater success in languages (e.g. Kupari et al., 2013; Ristikari et al., 2016).

The effects of the transition to secondary school were especially apparent in the grades of the Sámi boys. One major factor in the shift in grades was the shift in languages, as the students began studying in the Finnish language when they transitioned to secondary school. School difficulties tend to pile up, and differences tend to increase more quickly among students learning in a foreign language (as compared to students learning in their native languages) (see Körkkö et al., 2017). From childhood, Sámi pupils should foster conditions to build balanced levels of self-esteem, identity and value related to the adoption of their own language and culture. Sámi society has been shown to be an effective way of strengthening students' identity. Such steps can guarantee the continuity of the Sámi language and culture. It is important that Sámi pupils be able to study in their native

language, since this will place them on an equal footing with the majority of the population. Indigenous education includes culturally relative perceptions of gender. This means that gender is seen as a resource and a very important aspect of cultural diversity. Free gender education is favored because it blocks out the human ego. Such education is, therefore, necessary to achieve the culturally sensitive, gender-equal education of indigenous people.

Indigenous actors engage in culturally important tasks. Natural conditions can be hard, and boys and men engage in physically and mentally demanding tasks. Both genders are usually active in gender-neutral positions. This does not imply a mythical or unequal character in the story of Sámi gender; instead, it means that each gender tries to meet its own cultural needs and central functions. Boys, like their fathers, do heavy physical work to earn a living in the natural environment through hunting and reindeer herding. They have a closely regulated community, which determines the context of each year's tasks.

Education, school, the Sámi culture and gender perspectives are all important to consider. Education is critical to humanity and its evolution and development. However, education must be based on a conscious perspective of humans and the world. Furthermore, it is important to always increase education. In this contexts, one of the most important goals of education is to increase the so-called 'free man': that is, adults' ability to direct themselves, their own will, and the goal of global operations. In Sámiland it may mean through increasing well-being, communication and cooperation can mean doing well, communication and cooperation. Adults are responsible for education; thus, they must fix their mistakes, accept their own humanity and the humanity of others and find a way to work collaboratively on social communication. In sum, education is about solidarity, charity and respect for human rights.

Notes on contributors: PhD Pigga Keskitalo and PhD Merja Paksuniemi have given equal contribution to the article, the names are mentioned in alphabetical order.

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